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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/799,065	03/12/2004	Ching-Fu Hsueh	10113891	6743	
34283	7590 04/04/2006	EXAMINER		INER	
QUINTERO LAW OFFICE 1617 BROADWAY, 3RD FLOOR			MAI, ANH T		
	IICA, CA 90404		ART UNIT PAPER NUMBER		
2	,		2832	,	
		·	DATE MAILED: 04/04/2000	DATE MAILED: 04/04/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/799,065	HSUEH ET AL.			
Office Action Summary	Examiner	Art Unit			
	Anh T. Mai	2832			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period versiling to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused and will expire SIX (6) MONTHS from a cause the application to become ABANDONE!	l. the mailing date of this communication. (35 U.S.C. § 133).			
Status					
<ul> <li>1) ⊠ Responsive to communication(s) filed on 25 Ja</li> <li>2a) ⊠ This action is FINAL. 2b) ☐ This</li> <li>3) ☐ Since this application is in condition for alloware closed in accordance with the practice under E</li> </ul>	action is non-final. nce except for formal matters, pro				
Disposition of Claims					
4) ☐ Claim(s) 1-16 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1,4,5,8-13 and 16 is/are rejected. 7) ☐ Claim(s) 2,3,6,7,14 and 15 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o	wn from consideration.				
Application Papers					
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents</li> <li>2. Certified copies of the priority documents</li> <li>3. Copies of the certified copies of the priority documents</li> <li>application from the International Bureau</li> <li>* See the attached detailed Office action for a list</li> </ul>	s have been received. s have been received in Application rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage			
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:				

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#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. <u>Claims 1 and 4</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. in view of Wantanabe and further in view of Ghiringhelli [4016477].

Kimura discloses a coupling core 12; a first winding 2 around the core; a first bobbin 10 disposed between the first winding and the core; a plurality of second windings 41,42,43, separated from each other by separators disposed around exterior of the second bobbin 11, independent of each other and respectively winding around the exterior of the first winding 2, a second bobbin 11 disposed between the first winding and second winding [figure 6].

Kimura discloses the claimed invention except for magnetic core being iron core.

Wantanabe, however discloses the iron core 33,34 inserted into bobbins 16,22 [figure 1; abstract].

Because Kimura and Wantanabe are both from the same field of endeavor, the application of iron into magnetic core as disclosed by Wantanabe would have been recognized as pertinent art of Kimura.

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the apparatus as disclosed by Kimura with iron core as disclosed by

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Wantanabe for the purpose of providing alternate materials that are available to perform the mechanical/electrical requirement for the device.

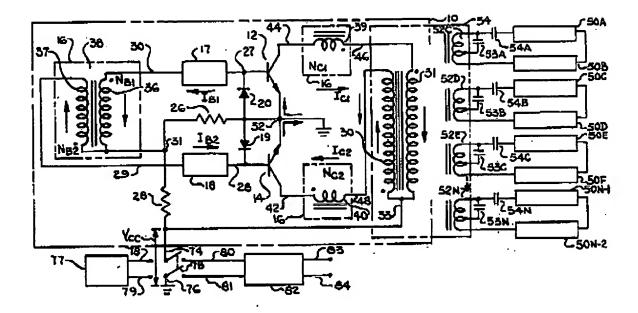
With respect to limitation "the second windings have the same winding number", as disclosed by applicant in the specification page 8, lines 25-30, "according to Faraday's Law and Lenz's Law, even numbers of secondary windings use the same iron core and have the same winding number, so they have the same magnetic flux and direction. Thereby, current through the secondary winding for output is balanced automatically. It would have been obvious to have the same winding number as taught Faraday and Lenz laws for the reason stated above.

Kimura in view of Wantanabe discloses the claimed invention except for each pair of the plurality of lighting tubes being connected in series and driven by one of the plurality of second windings.

Ghiringhelli discloses a plurality of lighting tubes 50A, 50B, 50C...50N-2, each pair connected in series and driven by one of second windings 52C, 52D, 52E, 52N [see fig 1].

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to have a pair of lighting tubes connected in series as taught by Ghiringhelli to Wantanabe in view of Kumura for the purpose of optimize the output light of the lamps [col 5, lines 66].

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3. <u>Claims 5, 8-13, 16</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. in view of Watanabe further in view of Lin et al. and further in view of Ghiringhelli.

Kimura and Watanabe disclose the claimed invention as cited in rejection of claims 1-4.

Kimura and Watanabe do not disclose the first and second voltage signals of the first and second windings respectively.

Lin however, discloses a driving circuit to provide signal on the primary side of the transformer and secondary side to output AC signal which drives a plurality of lamp set Lp1 to Lp6 [figure 6, col 1, lines 58-64].

Because Kimura, Watanabe and Lin are from the same field of endeavor, the application of signal received from the first winding as disclosed by Lin would have been recognized as pertinent art of Kimura in view of Watanabe.

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to arrange the transformer as disclosed by Kimura in view of Watanabe

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with first voltage signal at the primary side and a second voltage signal generated by secondary winding for driving a plurality of lamp sets as disclosed by Lin to provide multi-lamp driving system which directly control the current balance among lamps [col 1, lines 53-55].

Kimura in view of Watanabe and further in view of Lin discloses the invention as claimed except for plurality of lighting tubes connected in series.

Ghiringhelli discloses a plurality of lighting tubes 50A, 50B, 50C...50N-2, each pair connected in series and driven by one of second windings 52C, 52D, 52E, 52N [see fig 1]. It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to have a pair of lighting tubes connected in series as taught by Ghiringhelli to Wantanabe in view of Kumura for the purpose of optimize the output light of the lamps [col 5, lines 66].

With respect to claims 8, 16, Kimura discloses second windings 41,42,43, are separated from each other by separators disposed around exterior of the second bobbin 11 [figure 6].

With respect to claims 11, 13, Kimura discloses the lamps are discharge tube [col 1; lines 6-10].

### Allowable Subject Matter

4. <u>Claims 2-3, 6-7, 14-15</u> are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2 and 6, 14 recite inter alia, the plurality of second windings generates high voltage signals induced from the first winding and the third winding.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

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## Response to Arguments

- 5. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.
- 6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ANH MAI PRIMARY EXAMINER